**DECLARATION UNDER 35 U.S.C. § 1.132**

Sir:

I, Gerald Wayne Both am a co-inventor of the above-identified patent application entitled "DNA Encoding Ovine Adenovirus (OAV287) And Its Use As A Viral Vector." My curriculum vitae is enclosed herewith.

I have become aware of a clerical error in Figure 13 of the above-identified patent application. Figure 13 was added at the time of filing the continuation-in-part application (USSN 464,767)in order to correct mistakes in the nucleotide sequence of the OAV287 virus genome, which is shown in Figure 1. The nucleotide sequence illustrated in Figure 13 differs from the sequence illustrated in Figure 1 at seven positions that are demarcated by either an "X" in bold and of larger font than the surrounding letters to indicate deletion of a nucleotide from the sequence shown in Figure 1 or by insertion of the corrected sequence, indicated by bold letters of larger font than those surrounding the insertion. No other changes are indicated in Figure 13.

However, I have become aware that one nucleotide in the original sequence set forth in Figure 1 was inadvertently dropped in the process of when making Figure 13. In Figure 1, a "T" appears in the sequence at position

24776 (the surrounding sequence is "AGAAATAGTT"; the "T" in question is underlined). However, in the corresponding sequence set forth in Figure 13, the "T" does not appear. The corresponding sequence in Figure 13 reads "AGAAA**G**AGTT." The sequence of Figure 1 was amended in Figure 13 by addition of a "G" at position 24777, however in the process of transcribing the change a "T" was inadvertently dropped from the sequence.

It is clear that the "T" was not intentionally deleted since an "**X**" does not appear in its place, whereas at every other site in the corrected sequence of Figure 13 where a nucleotide was deleted an "**X**" is inserted to show that the nucleotide was deleted. For example, immediately downstream of the sequence in question, an "**X**" appears in Figure 13 to illustrate the deletion of a "G" at position 24818 from the sequence shown in Figure 1. Another "**X**" appears in Figure 13 to illustrate the deletion of the "C" shown at position 1140 in Figure 1. Such demarcations of deletions within nucleotide sequences are routinely used. Thus, it would be understood by one of ordinary skill in the art that no change to the sequence is intended at position 29776 and that the "T" shown in Figure 1 is a part of the OAV287 sequence.

I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

9/7/02
Date

G. W. Both
Gerald Wayne Both

## CURRICULUM VITAE

| | |
|---|---|
| **NAME:** | BOTH, Gerald Wayne |
| **DATE AND PLACE OF BIRTH:** | January 12, 1949; Angaston, South Australia |
| **MARITAL STATUS:** | Married. Two children. |

### EDUCATION:

| | |
|---|---|
| 1961-1965 | Nuriootpa High School, Nuriootpa, South Australia |
| 1966-1969 | Bachelor of Science (Honours) - Biochemistry - University of Adelaide, Adelaide, South Australia |
| 1970-1973 | Doctor of Philosophy - University of Adelaide |

### BRIEF CHRONOLOGY OF EMPLOYMENT:

| | |
|---|---|
| 1973-1975 | Postdoctoral Fellow, Department of Cell Biology, Roche Institute of Molecular Biology, Nutley, New Jersey, U.S.A. |
| 1976-1978 | Visiting Fellow, Department of Microbiology, John Curtin School of Medical Research, Australian National University, Canberra, Australia. |
| 1978-present | Research Scientist (RS), Senior RS, Principal RS, Senior Principal RS, Programme Leader (1992-1997), **Chief Research Scientist** (July 1998-present); CSIRO Division of Molecular Science, North Ryde, NSW. |

### FELLOWSHIPS:

Intermediate Exhibition
Commonwealth Secondary Scholarship
Commonwealth Open Scholarship
Commonwealth Postgraduate Award in Biochemistry
Postdoctoral Research Fellowship (Roche Institute of Molecular Biology)
Queen Elizabeth II Fellowship (held at ANU)

### AWARDS:

**Boehringer Medallist 1985** (National Award by the Australian Society for Biochemistry and Molecular Biology )

## SOCIETIES

Australian Society for Biochemistry and Molecular Biology (1970-1999)

Genitourinary Oncology Group, NSW

American Society of Gene Therapy

Australasian Gene Therapy Society

## RESEARCH INTERESTS:

1. Structure and function of adenovirus genes and proteins
2. Design and construction of recombinant ovine and human adenoviruses for gene delivery
3. Delivery of therapeutic genes for prostate cancer

## COMMITTEES

1. Co-organizer Vaccines Conference Lorne 1986, 1988, 1990 and 1993,
2. **Principal Organiser**, Boden Conference on Gene Therapy, Thredbo, NSW, Feb 4th-7th, 1997.
3. Co-organiser, 2nd meeting Australasian Gene Therapy Society, Sydney, April 27-29th, 2001.
4. **Member** Genetic Manipulation Advisory Committee (GMAC) 2000-2001.
5. **Member** Gene Technology Technical Advisory Committee, June 2001-present.
6. **Foundation Vice-President** Australasian Gene Therapy Society, 2001.

## PhD STUDENTS

S. Clare Stirzaker, David B. Mitchell and Marilyn Clarke and Apru Khatri successfully completed their degrees in Feb. 1989, Feb. 1990 and Dec 1994 and Mar 1998, respectively.

## REFEREE FOR

Aust. Research Council

NH&MRC

World Health Organisation

Welcome Foundation

Human Frontier Science Programme

Italian Ministry of University and Scientific Research

Royal Children's Hospital Foundation, VIC.

Journal of Virology (USA), Archives of Virology, J Gen Virology

Examined many PhD theses for Australian Universities

PUBLICATIONS -April 2001.


1. **Both, G.W.**, McInnes, J.L. May and Elliott, W.H. (1971.). Insensitivity of *Bacillus amyloliquefaciens* extracellular protease formation to rifampicin and actinomycinD. Biochem. Biophys. Res. Commun. **42:** 750.

2. **Both, G.W.**, McInnes, J.L., May, B.K. and Elliott, W.H. (1971). Recovery of *Bacillus amyloliquefaciens* protein synthesis from inhibition by pactamycin. Biochem. Biophys. Res. Commun. **43:** 1095.

3. **Both, G.W.**, McInnes, J.L., Hanlon, Joan E., May, B.K., Elliott, W.H. (1972). Evidence for an accumulation of messenger RNA specific for extracellular protease and its relevance to the mechanism of enzyme secretion in bacteria. J. Mol. Biol. **67:** 199.

4. **Both, G.W**. Studies on Extracellular Protease Formation by *Bacillus amyloliquefaciens.* Ph.D. Thesis, 1973.

5. Glenn, A.R., **Both, G.W.**, McInnes, J.L., May, B.K. and Elliott, W.H. (1973). Dynamic state of the messenger RNA pool specific for extracellular protease in *Bacillus amyloliquefaciens:* its relevance to the mechanism of enzyme secretion. J. Mol. Biol. **73:** 221.

6. **Both, G.W.**, Lavi, S. and Shatkin, A.J. (1975). Synthesis of all the gene products of the reovirus genome *in vivo* and *in vitro*. Cell **4:** 173.

7. **Both, G.W.**, Moyer, S.A. and Banerjee, A.K. (1975). Translation and identification of mRNA species synthesized *in vitro* by the virion-associated RNA polymerase of vesicular stomatitis virus. Proc. Natl. Acad. Sci. USA **72:** 274.

8. **Both, G.W.**, Moyer, S.A. and Banerjee, A.K. (1975). Translation and identification of viral mRNA species isolated from subcellular fractions of vesicular stomatitis virus-infected cells. J. Virol. **15:** 1012.

9. **Both, G.W.**, Banerjee, A.K. and Shatkin, A.J. (1975). Methylation-dependent translation of viral messenger RNAs *in vitro*. Proc. Natl. Acad. Sci. USA **72:** 1189.

10. Muthukrishnan, S., **Both, G.W.**, Furuichi, Y. and Shatkin, A.J. (1975). 5'-terminal 7-methylguanosine in eukaryotic mRNA is required for translation. Nature **255:** 33-37.

11. **Both, G.W.**, Furuichi, Y. Muthukrishnan, S. and Shatkin, A.J. (1975). Ribosome binding to mRNA in protein synthesis requires 5'-terminal 7-methylguanosine. Cell **6:** 185.

12. Muthukrishnan, S., Filipowicz, W., Sierra, J.M., **Both, G.W.**, Shatkin, A.J. and Ochoa, S. (1975). mRNA methylation and protein synthesis in extracts from embryos of Brine Shrimp, Artemia Salina. J. Biol. Chem. **250:** 9336.

13. Shatkin, A.J., **Both, G.W.**, Furuichi, Y., Kozak, M. and Muthukrishnan, S. (1976). 5'-terminal 7-methylguanosine in viral mRNAs and its role in translation. Squaw Valley Meeting. *In* Animal Virology, Academic Press, NY. pp659-676.

14. Shatkin, A.J., Banerjee, A.K., **Both, G.W.**, Furuichi, Y. and Muthukrishnan, S. (1976). Dependence of translation on 5'-terminal methylation of mRNA. Fed. Proc. (minisymposium "Protein Biosynthesis") **35:** 2214-2217.

15. **Both, G.W**, Furuichi, Y., Muthukrishnan, S. and Shatkin, A.J. (1976). Effect of 5'-terminal structure and base composition on polynucleotide binding to ribosomes. J. Mol. Biol. **104:** 637-658.

16. Shatkin , A.J., **Both, G.W.**, Furuichi, Y. Kozak, M. and Muthukrishnan, S. (1976). 5'-terminal 7-methylguanosine in viral mRNAs and its role in translation. Animal Virology, p.659-676, Academic Press, N.Y.

17. Shatkin, J. and **Both, G.W.** (1976). Reovirus mRNA: transcription and translation. Cell **7:** 305.

18. Muthukrishnan, S., Furuichi, Y., **Both, G.W.** and Shatkin, A.J. (1976). Prog. Nucl. Acids Res. Mol. Biol. **19:** 473-476.

19. Shatkin, A.J., Banerjee, A.K. and **Both, G.W.** (1977). Translation of animal virus mRNAs *in vitro*. In "Comprehensive Virology" **10:** 1-71.

20. Sleigh, M.J., **Both, G.W.** and Brownlee, G.G. (1979). A new method for the size estimation of the RNA genome segments of influenza virus. Nucl. Acids Res. **6:** 1309-1322.

21. **Both, G.W.** (1979). A possible involvement of coding sequences in mRNA - ribosome interaction in eukaryotes. FEBS Lett. **101:** 220-224.

22. **Both, G.W.** and Air, G.M. (1979). Nucleotide sequence coding for the N-terminal region of the matrix protein of influenza virus. Eur. J. Biochem. **96:** 363-372.

23. Sleigh, M.J., **Both, G.W.** and Brownlee, G.G. (1979). The influenza virus haemagglutinin gene: cloning and characterisation of a double-stranded DNA copy. Nucl. Acids Res. **7:** 879-893.

24. **Both, G.W.** and Sleigh, M.J. (1980). Complete nucleotide sequence of the haemagglutinin gene from a human influenza virus of the Hong Kong subtype. Nucl. Acids Res. **8:** 2561-2575.

25. Sleigh, M.J., **Both, G.W.**, Brownlee, G.G., Bender, V.J. and Moss, B.A. (1980). The haemagglutinin gene of influenza virus: nucleotide sequence analysis of cloned DNA copies. In "Structure and Variation in Influenza Virus", Elsevier (North Holland), p.69-78.

26. **Both, G.W.**, Sleigh, M.J., Bender, V.J. and Moss, B.A. (1980). A comparison of antigenic variation in Hong Kong virus haemagglutinin at the nucleic acid level. In "Structure and Variation of Influenza Virus", Elsevier (North Holland), p.81-89.

27. Sleigh, M.J., **Both, G.W.**, Underwood, P.A. and Bender, V.J. (1981). Antigenic drift in the haemagglutinin of the Hong Kong influenza subtype: correlation of amino acid changes with alterations in viral antigenicity. J. Virol. **37:** 845-853.

28. **Both, G.W.** and Sleigh, M.J. (1981). Conservation and variation in the haemagglutinins of Hong Kong subtype influenza viruses during antigenic drift. J. Virol. **39:** 663-672.

29. Sleigh, M.J. and **Both, G.W.** (1981). The extent of haemagglutinin variation during antigenic drift in the Hong Kong subtype of influenza from 1968-1979. In "Genetic Variation among Influenza Viruses", ICN-UCLA Symposia Vol. 21, p.344-353. (Nayak, D.P. and Fox, C.F., eds.), Academic Press.

30. Sleigh, M.J. and **Both, G.W.** (1982). Antigenic change and haemagglutinin gene evolution among influenza viruses. In "Manipulation and Expression of Genes in Eukaryotes". P. Nagley, A.W. Linnane, W.J. Peacock and J.A. Pateman, eds. (Academic Press, Sydney), p.357-364.

31. **Both, G.W.**, Bellamy, A.R., Street, J.E. and Siegman, L.J. (1982). A general strategy for cloning double-stranded RNA: nucleotide sequence of the Simian-11 rotavirus gene 8. Nucl Acids Res. **10:** 7075-7087.

32. **Both, G.W.**, Mattick, J.S., Siegman, L.J., Atkinsons, P.H., Weiss, S., Bellamy, A.R., Street, J.E. and Metcalf, P. (1983). Cloning of SA-11 rotavirus genes: gene structure and polypeptide assignment for the type-specific glycoprotein. In "The Double Stranded RNA Viruses", eds. Bishop, D.H.L. and Compans, R.W. (Academic Press, New York), p.73-82.

33. **Both, G.W.**, Sleigh, M.J., Bender, V.J., Underwood, P.A., Whittaker, R., Moss, B.A. Cox, N.J. and Kendal, A.P. (1983). A survey of antigenic drift in the haemagglutinin of H3N2 influenza virus isolates since 1968, In "The Origin of Pandemic Influenza Strains", W.G. Laver, ed. (Elsevier, New York), p.39-46.

34. **Both, G.W.**, Sleigh, M.J., Cox, N. and Kendal, A.P. (1983). Antigenic drift in H3 influenza haemagglutinin from 1968-1980: multiple evolutionary pathways and sequential amino acid changes at key antigenic sites. J. Virol. **48:** 52-60.

35. **Both, G.W.**, Mattick, J.S. and Bellamy, A.R. (1983). The serotype-specific glycoprotein of Simian-11 rotavirus: coding assignment and gene sequence. Proc. Natl. Acad. Sci. USA **80:** 3091-3095.

36. **Both, G.W.**, Siegman, L.J., Bellamy, A.R. and Atkinson, P.H. (1983). Coding assignment and nucleotide sequence for Simian-11 rotavirus gene segment 10: location of glycosylation sites suggest that the signal peptide is not cleaved. J. Virol. **48:** 335-339.

37. **Both, G.W.**, Shi, C.H. and Kilbourne, E.D. (1983). The haemagglutinin of swine influenza virus: a single amino acid change pleiotropically affects viral antigenicity and replication. Proc. Natl. Acad. Sci. USA **80:** 6996-7000.

38. **Both, G.W.**, Bellamy, A.R. and Siegman, L.J. (1984). Nucleotide sequence of the dsRNA genomic segment 7 of Simian-11 rotavirus. Nucl. Acids Res. **12:** 1621-1626.

39. **Both, G.W.**, Siegman, L.J., Atkinson, P.H., Poruchynsky, M.S., Kabcenell, A., Street, J.E., Gunn, P.R., Sato, F., Powell, K.F.H. and Bellamy, A.R. (1984).. Analysis of

cloned genes encoding rotavirus type-specific neutralizing antigens. In "Modern Approaches to Vaccines", eds. Chanock, R. and Lerner, R. (Cold Spring Harbor Press), p.53-58.

40. **Both, G.W.**, Siegman, L.J., Bellamy, A.R., Ikegami, N., Shatkin, A.J. and Furuichi, Y. (1984). Comparative sequence analysis of rotavirus genomic segment 6 - the gene specifying viral subgroups 1 and 2. J. Virol. **51:** 97-101.

41. Boyle, D.B., Coupar, B.E.H., and **Both, G.W.** (1985). Multiple cloning site plasmids for the rapid construction of recombinant pox viruses. Gene **35:** 169-177.

42. Gunn, P.R., Sato, F., Powell, K.F.H., Bellamy, A.R., Napier, J.R., Harding, D.R.K., Hancock, W.S., Siegman, L.J. and **Both, G.W.** (1985). The rotavirus neutralizing protein VP7: antigenic determinants investigated by sequence analysis and peptide synthesis. J. Virol. **54:** 791-797.

43. Gunn, P.R., Clarke, S., **Both, G.W.** and Bellamy, A.R. (1985). Cloning the rotavirus genome: the implications for vaccine development. In "Infectious Diarrhea in the Young; Strategies for Control in Humans and Animals". S. Tzipori *et al.* eds. (Elsevier, Amsterdam), p.221-230.

44. **Both, G.W.**, Clark, S.J., Gunn, P.R., Sato, F. and Bellamy, A.R. (1985). Towards a vaccine against bovine rotaviruses. In "Veterinary Viral Diseases; their Significance in South-east Asia and the Western Pacific". A.J. Della-Porta, ed. (Academic Press, Sydney), p.507-510.

45. Poruchynsky, M.S., Tyndall, C., **Both, G.W.**, Sato, F., Bellamy, A.R. and Atkinson, P.H. (1985). Deletions into an N-terminal hydrophobic domain result in secretion of rotavirus VP7, a resident endoplasmic reticulum membrane of glycoprotein. J. Cell Biol. **101:** 2199-2209.

46. Boyle, D.B., Coupar, B.E.H., Parsonson, I., Bagust, T.J. and **Both, G.W.** (1986). Responses of cattle, sheep and poultry to a recombinant vaccinia virus expressing a swine influenza haemagglutinin. Res. Vet. Sci. **41:** 40-44.

47. Coupar, Barbara E.H., Andrew, Marion E., **Both, Gerald W.**, Boyle, David B. (1986). Temporal regulation of influenza haemagglutinin expression in vaccinia virus recombinants and effects on the immune response. Eur. J. Immunol. **16:** 1479-1487.

48. Andrew, Marion E., Coupar, Barbara E.H., Boyle, David B., Whitfeld, Peter L., **Both, Gerald W.** and Bellamy, Richard A. (1987). Vaccinia virus recombinants expressing the SA-11 rotavirus VP7 glycoprotein gene induce serotype-specific neutralising antibodies. J. Virology **61:** 1054-1060.

49. **Both, G.W.** and Jennings, P.A. (1987). Gene cloning to study viral antigens: prospects for novel influenza and rotavirus vaccines. In "Progress in Veterinary Microbiology and Immunology". R. Pandey, Ed. (Karger, Basel) **3:** 179-203.

50. Boyle, David B., Coupar, Barbara E.H., Gibbs, Adrian J., Siegman, Linda J. and **Both, Gerald W.** (1987). Fowlpox virus thymidine kinase: nucleotide sequence and relationships to other thymidine kinases. Virology **156:** 355-365.

51. Andrew, M.E., Bellamy, A.R., Coupar, B.E.H., **Both, G.W**. and Boyle, D.B. (1987). Immune recognition of rotavirus antigens expressed by recombinant vaccinia viruses. *In* Vaccines 87: Modern approaches to new vaccines. Chanock,R.M., Lerner, R.A., Brown,F. Ginsberg, H., Eds., Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, pp408-411.

52. Andrew, Marion, E., Coupar, Barbara E.H., **Both, Gerald W**. and Boyle, David B. (1987). Temporal regulation of influenza haemagglutinin expression in vaccinia virus recombinants and effects on the immune system. *In* Vaccines 87: Modern approaches to new vaccines. Chanock,R.M., Lerner, R.A., Brown,F. Ginsberg, H., Eds., Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, pp72-76.

53. Whitfeld, P.L., Tyndall, C., Stirzaker, S.C., Bellamy, A.R. and **Both, G.W**. (1987). Location of sequences within the rotavirus SA11 glycoprotein VP7 which direct it to the endoplasmic reticulum. Mol. Cell. Biol. **7:** 2491-2497.

54. Coupar, Barbara E.H., Boyle, David B. and **Both, Gerald W**. (1987). Effect of *in vitro* mutation in a vaccinia virus promoter region monitored by herpes simplex virus thymidine kinase expression in recombinant vaccinia virus. J. Gen. Virology. **68:** 2299-2309.

55. Stirzaker, C.S. , Whitfeld, P.L., Christie, D.L., Bellamy, A.R. and **Both, G.W**. (1987). Processing of rotavirus glycoprotein VP7: implications for the retention of the protein in the endoplasmic reticulum. J. Cell Biol. **105:** 2897.

56. **Both, G.W**. (1988). Replication of the reoviridae: information derived from gene cloning and expression. *In* RNA Genetics, CRC Press, P. Alquist, E. Domingo, J. Holland (eds.). Vol. 1, pp. 171-193.

57. Collis, C., Molloy, P.L., **Both, G.W.** and Drew, H.R. (1989). The influence of DNA folding on transcription in *E. coli*. Nucleic Acids Res. **17:** 9447-9468.

58. Mitchell, D.B. and **Both, G.W**. (1988). Simian rotavirus SA11 segment 11 contains overlapping reading frames. Nucl. Acids Res. **13:** 6244.

59. Stirzaker , C.S. and **Both, G.W.** (1989). The signal peptide of the rotavirus glycoprotein VP7 is essential for its retention in the ER as an integral membrane protein. Cell **56:** 741-747.

60. Mitchell, D. B. and **Both, G.W.** (1989). Complete nucleotide sequence of the simian rotavirus SA11 VP4 gene. Nucleic Acids Res. **17:** 2122.

61. Mitchell, D.B. and **Both, G.W.** (1989) Conservation of a metal binding motif within extensive sequence diversity in the rotavirus non-structural protein NS53. Virology **174:** 618-621.

62. Bellamy, A. R. and **Both, G.W.** (1990). "The molecular biology of rotaviruses." *In* Advances in Virus Research. Eds. Maramorosch, K. , Murphy, F..A. and Shatkin, A.J. Academic Press, San Diego. 1-43.

63. Stirzaker, S. C., Poncet, D. and **Both, G.W.** (1990). Sequences in the rotavirus glycoprotein VP7 which mediate delayed translocation and retention of the protein in the ER. J. Cell Biol. **111:** 1343-1350.

64. **Both, G.W.**, Taylor, L., Pollard, J. W. and Steele, E. J. (1990). Distribution of mutations around rearranged heavy-chain antibody variable-region genes. Mol. Cell. Biol. **10:** 5187-5196

65. **Both, G.W.**, Stirzaker, S.C., and Bergmann, C.C. , Andrew, M.E., Boyle, D.B. and Bellamy, A.R. ( 1990). "Analysis of rotavirus proteins by gene cloning, mutagenesis and expression." *In* Applied Virol. Research, E. Kurstak, R.G. Marusyk, F.A. Murphy and M.H.V. van Regenmortel. (Eds) Plenum, New York., pp267-290.

66. Andrew, M.E., Boyle, D.B., Coupar, B.E.H., Bellamy, A.R. , Reddy, D. and **Both, G.W.** (1990). "Improved antigenicity of cell surface-anchored rotavirus antigens." *In* Vaccines 91: Modern Approaches to Vaccines. including prevention of AIDS. Chanock, R.M., Ginsberg, H.,S., Brown, F., Lerner, R.A. Eds. Cold Spring Harbor Laboratory,Cold Spring Harbor, NY. pp271-275.

67. Mitchell, D. B. and **Both., G. W.** (1990). Completion of the genomic sequence of the simian rotavirus SA11: nucleotide sequences of segments 1, 2 and 3. Virology **177:** 324-331.

68. Steele, E.J., Taylor, L. and **Both, G.W**. (1990). Somatic mutation in antibody genes. Today's Life Science **2:** 28-36.

69. **Both, G.W**. (1990). Protein transport. Today's Life Science **2:** 12-18.

70. Andrew, Marion E., Boyle, David.B., Whitfeld, Peter L., Lockett, Linda J., Anthony, Induma, Bellamy, A. Richard and **Both, Gerald W**. (1990). The immunogenicity of VP7, a rotavirus antigen resident in the ER, is enhanced by cell-surface expression. J. Virol. **64:** 4776-4783.

71. Mattion, N.M., Mitchell, D.B., **Both, G.W.** and Estes, M.K. (1990). Expression of rotavirus proteins encoded by alternative open reading frames of genome segment 11. Virology.**181:**295-304

72. Steele, E.J., Pollard, J.W., Taylor, L. and **Both, G.W.** (1991). "Evaluation of possible mutator mechanisms active on mammalian variable region genes. *In* Somatic Hypermution in V-regions. Ed. Steele, E.J. CRC Press, Boca Raton. pp137-148.

73. Offit, P.A. Boyle, D.B., **Both, G W.**, Hill, N.L., Svoboda, Y.S., Cunningham, S.L., Jenkins, R.J., and McCrae, M.A. (1991). Outer capsid glycoprotein vp7 is recognized by cross-reactive, rotavirus-specific, cytotoxic T lymphocytes. Virology **184:**563-568.

74. Andrew, M.E., Boyle, D.B., Coupar, B.E.H., Reddy, D., Bellamy, A.R. and **Both, G.W**. (1992). Vaccinia-rotavirus vp7 recombinants protect mice against rotavirus-induced diarrhoea. Vaccine **10:**185-191

75. Reddy, D.A., Bergmann, C.C., Meyer, J.C., Berriman, J., **Both, G.W.,** Boyle, D.B., Andrew, M.E., and Bellamy, A.R. (1992). Rotavirus vp6 modified for expression at

the plasma membrane forms arrays and exhibits enhanced immunogenicity. Virology **189:**423-434

76. **Both, G.W.**, Andrew, M.E., Boyle, D.B., Coupar, B.E.H. and Bellamy, A.R. (1992). Relocation of antigens to the cell surface membrane can enhance immune stimulation and protection. Immunol. Cell Biol. **70:**73-78.

77. Steele, E.J., Rothenfluh, H.S., and **Both, G.W.**, (1992). Defining the nucleic acid substrate for somatic hypermutation. Immunol. Cell Biol. **70:**129-144.

78. **Both, G.W.,** Lockett, L.J., Janardhana, V., Edwards, S.J., Bellamy, A.R., Graham, F.L., Prevec, L. and Andrew, M.E. (1993). Protective immunity to rotavirus-induced diarrhoea is passively transferred to new-born mice from naive dams vaccinated with a single dose of a recombinant adenovirus expressing rotavirus VP7sc. Virology, **193:**940-950.

79. Rothenfluh,H.S, Taylor, L., Bothwell, A.L.M., **Both,G.W.** and Steele, E.J. (1993). Somatic hypermutation in 5' flanking regions of heavy chain antibody variable regions. Eur. J. Immunol., **23:**2152-2159.

80. **Both, G.W.**, Bellamy, A. R. and Mitchell, D.B. (1994). Rotavirus protein structure and function. Curr. Top. Microbiol. Immunol. 185:58-97

81. Offit, P.A., Coupar, B.E.H., Svoboda,Y.M. Jenkins,R.J., McCrae, M.A., Abraham, A., Hill, N.L., Andrew, M.E., Boyle, D.B. and **Both, G.W.** (1993). Induction of rotavirus-specific cytotoxic lymphocytes by vaccinnia virus recombinants expressing individual rotavirus genes. Virology, **198:**10-16.

82. Boyle, D.B., Pye, A.D., Kockerhans, R., Adair, B.M., Vrati, S. and **Both, G.W.** (1994). Characterisation of Australian ovine adenovirus isolates. Veterinary Microbiology, **41:**281-291.

83. Dormitzer, P.R, **Both, G.W.** and Greenberg, H B. (1994). Presentation of neutralising epitopes by engineered rotavirus VP7's expressed by recombinant vaccinia viruses. Virology, **204:**391-402.

84. Vrati, S. V., Boyle, D. B., Kockerhans, R., and **Both, G. W.** (1995). Sequence of ovine adenovirus 100k hexon assembly, 33k, pVIII and fiber genes: Early region E3 is not in the expected location. Virology, **209:**400-408.

85. Xu, Z. Z., Krougliak, V., Prevec, L., Graham, F. L., and **Both, G. W.** (1995). Investigation of promoter function in human and animal cells infected with human recombinant adenoviruses expressing rotavirus antigen VP7sc. J gen Virol, **76:**71-80.

86. Clarke, M. L. and **Both, G. W.** (1995). Membrane binding and endoplasmic reticulum retention sequences of rotavirus VP7 are distinct: Role of carboxy-terminal and other sequences in membrane binding. J. Virol. **69:**6473-6478.

87. Anderson-McKay, J. E., **Both, G. W.** and Simpson, G. W. (1996). Regio- and steroselective synthesis of 6-methyl-9-(2-deoxy-β-D-erythro-pentofuranosyl)purine. Nucleotides and Nucleosides, **15:**1307-1313.

88. Vrati, S., Brookes, D.E., Boyle, D.B. and **Both, G.W.** (1996). Nucleotide sequence of ovine adenovirus tripartite leader sequence and homologues of the IVa2, DNA polymerase and terminal proteins. GENE, **177:**35-41.

89. Vrati, S., Brookes, D.E., Strike, P., Khatri, A, Boyle, D.B. and **Both, G.W.** (1996). Unique genome arrangement of an ovine adenovirus: Identification of new proteins and proteinase cleavage sites. Virology, **220:**186-199.

90. Vrati, S., MacAvoy, E.S., Xu, Z. Z., Smole, C., Boyle, D.B. and **Both, G.W.** (1996). Construction and transfection of ovine adenovirus genomic clones to rescue modified viruses. Virology, **220:**200-203.

91. Zheng Zhou Xu, Alex Hyatt,* David B. Boyle, and **Gerald W. Both** (1997). Construction Of Ovine Adenovirus Recombinants By Gene Insertion Or Deletion Of Related Terminal Region Sequences. Virology, **230:**62-71.

92. Russell, P. J., Molloy, P. L. and **Both, G. W.** (1997) Gene therapy for prostate cancer. Today's Life Sciences. **9:**20-27.

93. Rothel, J. S., Boyle, D. B., **Both, G. W.**, Pye, A. D., Waterkyn,J. G., Wood, P. R. and Lightowlers, M. W. (1997). Sequential nucleic acid and recombinant adenovirus vaccination of sheep: Protective antibody levels equal to those with a conventional adjuvanted vaccine against*Taenia ovis*. Parasite Immunology, **19:**221-227.

94. Linda J. Lockett, Peter L. Molloy, Pamela J. Russell and **Gerald W. Both**. (1997) Relative Efficiency Of Tumour Cell Killing In Vitro By Two Enzyme-Prodrug Systems Delivered By Identical Adenovirus Vectors . Clin Cancer Res. **3:**2075-2080.

95. Aparajita Khatri, Zheng Zhou Xu and **Gerald W. Both** (1997). Gene Expression by Atypical Recombinant Ovine Adenovirus Vectors During Abortive Infection of Human and Animal Cells In Vitro. Virology, **239:**226-237.

96. Aruna Venktesh, Fujiko Watt, Zheng Zhou Xu and **Gerald W. Both** (1998). Ovine Adenovirus (OAV287) Lacks a VA RNA Gene. J. gen Virol, **79:**509-516.Aparajita Khatri and **Gerald W. Both** (1998). Identification of Transcripts and Promoter Regions of Ovine Adenovirus OAV287. Virology, **245:**128-141.

98. Martiniello-Wilks, R., Garcia-Aragon, J., Daja, M., Russell, P., **Both, G. W.** Molloy, P. L., Lockett, L.J. and Russell, P. J. (1998) In vivo gene therapy for prostate cancer: Preclinical evaluation of two different enzyme-directed pro-drug systems delivered by identical adenovirus vectors. Human Gene Therapy, **9:**1617-1626.

99. Zheng Zhou Xu and **Gerald W. Both** (1998). Altered Tropism of an Ovine Adenovirus Carrying the Fiber Protein Cell Binding Domain of Human Adenovirus Type 5. Virology, **248:** 156-163.

100. Russell, P. J., Martiniello-Wilks, R., Lockett, L.J., Brookes, D. E., Zandvliet, D., Watt, F., Molloy, P. L., Khatri, A. and **Both, G. W.** (1998). Prostate cancer gene therapy. Australasian Biotechnology, **8:**99-106.

101. Hofmann, C., Loser, P., Cichon, G., Arnold, W., **Both, G. W.**, and Strauss, M. (1999). Ovine adenoviral vectors overcome pre-existing humoral immunity against human adenoviruses *in vivo*. J. Virol. **73:** 6930-6936.

102. **Gerald W. Both,** Peter L. Molloy and Pamela J. Russell (1999). Gene therapy for prostate cancer: new approaches to an old problem. Australian Cancer Forum, **23:**104-106.

103. Löser P., Cichon G., Jennings G.S., **Both, G.W.** and Hofmann, C. (1999) Ovine adenovirus vectors promote efficient gene delivery in vivo. Gene Ther Mol. Biol. **4:** 33-43.

104. Xu, Z. Z., Nevels, M., MacAvoy, E. S.,Lockett, L. J., Curiel, D., Dobner, T. and **Both, G. W.** (2000). An ovine adenovirus vector lacks transforming ability in cells that are transformed by human adenovirus e1a/b sequences. Virology **260:**162-172.

105. Messina, M., Yu, D. M. T., Learoyd, D. L., **Both, G. W.**, Molloy, P. L., and Robinson, B. G. (2000). High level, tissue-specific expression of a modified calcitonin/calcitonin gene-related peptide promoter in a human medullary thyroid carcinoma cell line. Mol. Cell. Endocrinol.**164:**219-224.

106. Löser P., Hillgenberg, M., Arnold, W., **Both, G.W.** and Hofmann, C. (2000). Ovine adenovirus vectors mediate efficient gene transfer to skeletal muscle. Gene Therapy, **7:** 1491-1498

107. **Both, G. W.** (2000) Xenogenic adenoviral vectors. *In* Adenoviral Vectors for Gene Therapy. Eds, Curiel, D. T. and Douglas, J. T. Academic Press, San Diego. Invited Review Submitted.

108. Peter Löser, Daniel Kümin, Moritz Hillgenberg, **Gerald W. Both** and Christian Hofmann (2000). Methods for the preparation of ovine adenovirus vectors. *In* Gene Therapy Protocols. Submitted.

109. Marinella Messina, Diana Learoyd, **Gerald W Both**, Peter L Molloy, Bruce G. Robinson (2000). Gene therapy for endocrine tumours: strategies and progress. Current Opinions in Endocrinology and Diabetes, **8:**35-40.

110. **Both, G. W.** (2001). Atadenoviruses. *In* The Springer Index of Viruses. Eds, Tidone, C. A. and Darai, G. Springer Verlag, Berlin. p11-17.

111. Rosetta Martiniello-Wilks, Tania Tsatralis, Peter Russell, Dianna E Brookes, Dorethea Zandvliet, Linda J Lockett, **Gerald W Both**, Peter L Molloy and Pamela J Russell (2002). Transcription-Targeted Gene Therapy For Androgen-Independent Prostate Cancer. Cancer Gene Therapy, **9:** 443-452.

112. Dale Voeks, Rosetta Martiniello-Wilks, Vanessa Madden, Kylie Smith, Emma Bennetts, **Gerald W. Both**, Pamela J Russell (2002). Gene Therapy For Prostate Cancer Delivered By Ovine Adenovirus And Mediated By Purine Nucleoside Phosphorylase And Fludarabine In Mouse Models. Gene Therapy **9:** 759-768.

113. Linda J. Lockett and **Gerald W. Both** (2002). Complementation of a defective human adenovirus by an otherwise incompatible ovine adenovirus recombinant carrying a functional E1A gene. Virology, **294:**333-341.

114. **Both, G. W.** (2002). Xenogenic adenoviral vectors. *In* Adenoviral Vectors for Gene Therapy. Eds, Curiel, D. T. and Douglas, J. T. pp 447-479. Academic Press, San Diego.

115. Daniel Kümin, Michael Rudolph, **Gerald W. Both**, Christian Hofmann and Peter Löser (2002). Biology of Ovine Adenovirus Infection of Non-permissive Cells. Submitted for publication.
116. **Both, G.W.** (2002). Identification Of A Unique Family Of F-Box Proteins In Atadenoviruses. Submitted for publication.

**PATENTS**

1. Recombinant fowl pox virus and related avian pox virus - with inclusion of foreign DNA in the virus genome. (Sept, 1987) Inventors: **Both,GW** and Coupar, B E. WO8802022-A; AU8780757-A
2. Gene expression system esp. for rotavirus VP7 protein - using foreign signal peptide gene and optionally a trans-membrane anchor sequence. (WO8907140-A; AU8930453-A; EP398944-A; EP398944-A4; JP03503359-W). Inventors: **Both GW**, Stirzaker SC, Whitfeld PL
3. Rotavirus antigens: U.S. Patent No. 4, 861, 864. Inventors:P.A. Atkinson, **G. W. Both**, A.R. Bellamy, M. Poruchynsky, C.Tyndall. Issued August 29, 1989
4. PCT AU96/00518. Nucleic acid delivery with ovine adenoviral vectors. Inventor: **G. W. Both.** Issued in USA Feb 1st, 2000 (Pat No. 6,020,172).
5. PCT/AU98/00631. "Treatment of prostate cancer." Inventors: **G. W. Both**, P. J. Russell, R. Martiniello-Wilks.
6. PCT/AU95/00453. DNA Encoding Ovine Adenovirus (OAV287) and its use as a Viral Vector'. Inventors: **G. W. Both**, D. B. Boyle, S. Vrati.

**PATENT APPLICATIONS**

4. Regulatory Element (PSM gene enhancer): Inventors: F. Watt, P. L. Molloy and **G. W. Both**: International Patent Application (PCT filed March 2000; Provisional Patent filed March 1999).

## OTHER MEETINGS/ABSTRACTS

1. **Both, G.W.**, McInnes, J.L., May, B.K. and Elliott, W.H. (1971). Evidence for a unique accumulation of stable protease mRNA from *Bacillus amyloliquefaciens* and implications on the mechanism of extracellular enzyme synthesis. Proc. Aust. Biochem. Soc. **4:** 99.

2. Glenn, A.R., **Both, G.W.**, Gould, A.R. and Elliott, W.H. (1973). Accumulation of mRNA for extracellular enzymes: a prokaryote messenger transport mechanism from gene to membrane? Proc. Aust. Biochem. Soc. **6:** 60.

3. **Both, G.W.**, Glenn, A.R., McInnes, J.L., Gould, A., May, B.K. and Elliott, W.H. (1973). Accumulation of mRNA for extracellular membranes: a mRNA transport mechanism from gene to membrane? 9th International Congress of Biochemistry, Stockholm, Sweden.

4. Furuichi, Y., Muthukrishnan, S., **Both, G.W.** and Shatkin, A.J. (1975). Mechanism of synthesis of 5'-terminal m GpppGmpCpU... in reovirus mRNA. Proc. of the Third International Congress of Virology, Madrid, Spain.

5. **Both, G.W.**, Muthukrishnan, S., Furuichi, Y., Banerjee, A.K. and Shatkin , A.J. (1975). Requirement of 5'-terminal 7-methylguanosine for translation of reovirus and VSV mRNAs *in vitro*. Proc. of the Third International Congress for Virology, Madrid, Spain.

6. Muthukrishnan, S., Furuichi, Y., **Both, G.W.** and Shatkin, A.J. (1975). Effect of 5'-terminal structures on the binding of ribopolymers to eukaryotic ribosomes. Oak Ridge Symposium.

7. Shatkin, A.J., Banerjee, A.K., **Both, G.W.**, Furuichi, Y. and Muthukrishnan, S. (1975). 5'-terminal 7-methylguanosine in eukaryotic mRNAs and its requirement for translation. EMBO Workshop on *in vitro* Transcription and Translation of Viral Genomes, Trivernal, France.

8. **Both, G.W.** (1977). The role of $m^7$-guanosine in the initiation of eukaryotic protein synthesis. Specialist Conference on the Structure and Function of Ribosomes and Messenger RNA. Brisbane.

9. **Both, G.W.** (1978). Sequence studies on the 3'-terminal region of ribosomal RNAs. Proc. Aust. Biochem. Soc. **11:** 78.

10. Air, G.M. and **Both, G.W.** (1978). Sequencing the genome RNA segments of influenza virus. Proc. Aust. Biochem. Soc. **11:** 78.

11. Both, G.W. (1978). Structural and functional features of eukaryotic mRNAs. Proc. Aust. Biochem. Soc. **11:** 210.

12. Air, G.M., Blok, J., **Both, G.W.** and Hackett, J.A. (1979). Nucleotide sequences at the 5' ends of influenza virus mRNAs and N-terminal amino acid sequences of viral-coded proteins. Proc. Aust. Biochem Soc. **12:** 71.

13. **Both, G.W.** (1985). Molecular analysis of rotaviruses: pathway to a vaccine? Proc. Aust. Biochem. Soc. **17:** P.2.

14. **Both, G.W.** (1987). Analysis of rotavirus antigens by gene cloning mutation and expression. VIIth International Congress Virology Symposium on dsRNA viruses.

15. Stirzaker, S.C., Whitfeld, P.L., Lockett, L.J., Boyle, D.B., Andrew, M.E., Bellamy, A.R. and **Both, G.W.** (1988). Novel cell-surface preentation of a rotavirus neutralizing agent. Presented at Vector Based Vaccines, Albany, N.Y., July 1988.

16. Stirzaker, S.C. and **Both, G.W.** (1988). Targeting of a protein resident in the endoplasmic reticulum. Proc. Aust. Biochem. Soc. **20:** S10.

17. Stirzaker, S.C., Lockett, L.J., Poncet, D. and **Both, G.W.** (1989). Sorting of membrane proteins to the ER; studies using cloned rotavirus genes. Proc. Aust. Biochem. Soc. **21:** S11.

18. Stirzaker, S.C.,Whitfeld, P.L, Lockett, L.J., Andrew, M.E., Boyle, D.B, Bellamy, A.R. and **Both, G.W.** (1988). Novel cell-surface presentation of a neutralizing rotavirus antigen. Vaccines '88. Lorne.

19. **Both, G.W.** , Stirzaker, S.C.,Whitfeld, P.L, Lockett, L.J., Andrew, M.E., Boyle, D.B , Bellamy, A.R. (1989). Cell-surface presentation of a neutralizing rotavirus antigen enhances its antigenicity. Rotavirus Symposium, Jouy-en-Josas, France.

20. **Both, G.W.**, Stirzaker, S.C. and Poncet, D. (1990). A rate-limiting step in the translocation of a rotavirus glycoprotein VP7 is mediated by its signal peptide plus downstream sequences. UCLA Symp. on Mol. and Cell. Biol., Suppl. 14C, p30.

21. **Both, G.W.**, Whitfeld, P.L, Lockett, L.J., Andrew, M.E., Boyle, D.B., and Bellamy, A.R.(1990). Progress towards a rotavirus vaccine. Aust. Soc. Microbiol. Symp., Launceston.

22. **G. W. Both**, M.E. Andrew, D.B. Boyle, P.L. Whitfeld, S.C. Stirzaker, L.J. Lockett, I.D. Anthony and A.R. Bellamy (1990). Improved Antigenicity of Modified Rotavirus VP7.Expressed at the Cell Surface Membrane. VIII$^{th}$ Int. Congress of Virol., Berlin.

23. **G.W. Both**, M.E. Andrew, D.B. Boyle and A.R. Bellamy (1990). Ability of vaccinia viruses expressing rotavirus antigens to passively protect against homologous challenge in a Mouse Model System. Third International dsRNA Virus Meeting, December, Hawaii.

24. M. Andrew, D. Boyle, B. Coupar, A.R. Bellamy and **G.W. Both** (1992). Vaccinia-Rotavirus VP7 recombinants protect mice against rotavirus-induced diarrhoea. Meeting "Vaccines for Enteric Diseases", April, Cambridge.

25. P. Dormitzer, J.W. Burns, H.B. Greenberg, L. Prevec, F. Graham, D.B. Boyle and **G. Both** (1993). Vaccination of adult mice with recombinant viruses expressing a protective rotavirus antigen VP7sc. IXth International Congress of Virology, August, Glasgow.

26. **G.W. Both**, L.J. Lockett, V. Janardhana, S.J. Edwards, A.R. Bellamy, F.L. Graham, L. Prevec and M.E. Andrew (1993). Protective immunity to rotavirus-induced diarrhoea is passively transferred to new-born mice from naive dams vaccinated with a single dose of a recombinant adenovirus expressing VP7sc. IVth International dsRNA Virus Meeting, December, Phoenix, Arizona.

27. M.L. Clarke and **G.W. Both** (1993). Retention of rotavirus VP7 in the endoplasmic recitulum membrane occurs independently of its membrane binding capacity. ASBMB Meeting, July, Adelaide.

28. S. Vrati, D.B. Boyle and **G.W. Both** (1993). Genome arrangement of an ovine adenovirus in which a putative E3 region is inverted. IXth International Congress of Virology, August, Glasgow.

29. **G. W. Both,** Z.Z.Xu, V. Krougliak, L. Prevec, F. Graham, P. Dormitzer, J.W. Burns and H.B.Greenberg (1994). Vaccination against rotaviruses using recombinant viral vectors and a novel antigen, VP7sc. Symp. on Enteric Diseases, 16th Int Congress of Biochemistry and Molecular Biology, September, New Dehli, India.
30. **G. W. Both,** S. Vrati, E. MacAvoy, A. Khatri, Z.Xu, D. Brookes, C. Smole, A.D. Pye, R. Kocherhans and D. B. Boyle (1995) Potential of ovine adenovirus as a vaccine and gene therapy vector. Queenstown Molecular Biology Meeting, Queenstown, NZ.

31. **G.W. Both**, A. Khatri, Z.Z. Xu, E. S. MacAvoy, S. Vrati and D.B. Boyle (1996) Recombinant ovine adenoviruses lacking the penton integrin-binding motif deliver genes to animal and human cell lines. Xth International Congress of Virology, August, Jerusalem, Israel. W 45-5.

32. Aparajita Khatri, Zheng Zhou Xu, and **Gerald W. Both**, (1997). Packaging Capacity of Atypical Recombinant Ovine Adenovirus Vectors and Gene Expression During Abortive Infection of Human and Animal Cells In Vitro. Boden Conference on Gene Therapy, Thredbo, NSW, Feb 4th-7th.

33. **G.W. Both**, A. Khatri, Z. Z. Xu and D.B. Boyle (1997). Ovine Adenovirus: An abortively replicating vector with low residual gene activity. Keystone Conference, Molecular and Cellular Biology of Gene Therapy. Snowbird, Utah, April.
34. Martiniello-Wilks, R., Garcia-Aragon, J., Russell, P., **Both, G. W.**, Molloy, P.L., Lockett, L. J., and Russell, P. J. (1998) Gene therapy for prostate cancer: Comparison of two different enzyme pro-drug systems delivered by identical adenovirus vectors. American Assoc. For Cancer Research, Mar 28-Apr 1st, New Orleans, USA.
35. **Gerald W. Both**, Aparajita Khatri, Rose Martiniello-Wilks, Pamela J. Russell and Zheng Zhou Xu, (1998). Gene delivery and expression by an ovine adeno-virus vector during abortive replication in vitro and in vivo. American Soc of Gene Therapy, May 28th-31st, Seattle, WA. USA.
36. **Gerald W. Both,** Adenoviruses: Trojan horses for the delivery of therapeutic genes for prostate cancer. GeneCom '98. Adelaide, South Australia, Nov 29$^{th}$-Dec 2$^{nd}$.

37. **Gerald W. Both** and Zheng Zhou Xu, Targeted delivery of adenovirus vectors. Australian Society for Gene Therapy, Melbourne, Feb 22-23, 1999.
38. Zheng Zhou Xu, Elizabeth MacAvoy, Linda Lockett and **Gerald W. Both**. Ovine Adenovirus (OAV287) Lacks Transforming Ability In Cells That Are Transformed By Ad5 E1a/B Sequences. XI$^{th}$ Int Congress of Virology, Sydney, October 1999.
39. Peter Löser, Günther Cichon, Wolfgang Arnold, **Gerald W. Both**, and Christian Hofmann. Recombinant Ovine Adenoviruses Are Efficient Vectors For Gene Transfer In Vivo. Eur. Gene Ther Soc Meeting, Aug 1999.
40. Martiniello-Wilks R, Molloy PL, Brookes DE, Zandvliet D, **Both GW** and Russell PJ. A Novel Targeted Gene Therapy (Ept) For Androgen-Independent Prostate Cancer. Genitourinary Oncology Group meeting, Sydney, NSW, March 2000.

41. Voeks DJ, **Both GW**, Cameron F, Cooke B, Sterling-Levis K, Swadling J and Russell PJ Viral Transduction Of Human Prostate Tissue. Genitourinary Oncology Group meeting, Sydney, NSW, March 2000.
42. Russell PJ, Martiniello-Wilks R, Voeks D, Molloy PL & **Both GW**. Gene Therapy For Prostate Cancer. 8th Meeting of the European Society of Gene Therapy, 7-10th October, 2000.
43. **Gerald W. Both**, Dale Voeks, Rosetta Martiniello-Wilks, Vanessa Madden, Kylie Smith, Emma Bennetts and Pamela J Russell (2001). Gene-Directed Enzyme Prodrug Therapy For Prostate Cancer Delivered By An Ovine Adenovirus. American Soc for Gene Therapy, Seattle, May 30-June 3rd, 2001.
44. Rosetta Martiniello-Wilks, Dale J.Voeks, Allison Dane, Linda J. Lockett, Dianna E. Brookes, Kylie Smith, Emma Bennetts, **Gerald W. Both**, Peter L. Molloy and Pamela J. Russell. Targeted Gene Therapy For Androgen-Independent Prostate Cancer (2001). 2nd Meeting, Australasian Gene Therapy Society, Sydney, April 27-29th 2001.
45. **Gerald W. Both**. "Non-Human Adenoviral Vectors". 2nd Meeting, Australasian Gene Therapy Society, Sydney, April 27-29th, 2001.
46. Linda Lockett, Zheng-Zhou Xu and **Gerald W. Both**. Safety Features Of An Ovine Adenovirus Vector. 2nd Meeting, Australasian Gene Therapy Society, Sydney, April 27-29th, 2001.
47. Cameron, F, **Both, GW**, Voeks,DJ, Cooke, B, Sterling-Levis, K, Johnston, J and Russell, PJ. Viral transduction of human prostate cells. 2nd Meeting, Australasian Gene Therapy Society, Sydney, April 27-29th, 2001.
48. **Gerald W. Both** Dale J. Voeks, Rosetta Martiniello-Wilks, Fiona H. Cameron, Peter L. Molloy, Trevor J. Lockett and Pamela J. Russell (2001). Gene-directed enzyme prodrug therapy for prostate cancer delivered by an ovine adenovirus. Childhood Cancer; From Mechanisms to Therapeutics, Sydney Australia, 7-9th Oct.
49. Jan M. Shaw, Anne Collins and **Gerald W. Both** (2002). Propagation and Scale-Up of an Ovine Adenovirus Vector. 5th Meeting American Society for Gene Therapy. Boston June 5-9th.
50. **Gerald W. Both** (2002). Ovine Adenovirus, a Versatile Atadenovirus Vector for Gene Delivery. American Assocc Pharm Sciences meeting, San Diego, June 23-25th.